



#4

SEQUENCE LISTING

<110> Mack, David
Gish, Kurt
EOS Biotechnology, Inc.

<120> Methods of Diagnosis of Breast Cancer, Compositions and
Methods of Screening for Modulators of Breast Cancer

<130> 018501-001200US

<140> US 09/829,472

<141> 2001-04-09

<150> US 09/525,361

<151> 2000-03-15

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<170> PatentIn Ver. 2.1

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<223> BCX5, LNIR type Ia transmembrane protein

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 Ser Arg Ser Met Asn Gly Gln Pro Leu Thr Cys Val Val Ser His Pro
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 Gly Leu Leu Gln Asp Arg Arg Ile Thr His Thr Leu Gln Val Ala Phe
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 Leu Ala Glu Ala Ser Val Arg Gly Leu Glu Asp Gln Asn Leu Trp Gln
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 Val Gly Arg Glu Gly Ala Thr Leu Lys Cys Leu Ser Glu Gly Gln Pro
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 Pro Pro Lys Tyr Asn Trp Thr Arg Leu Asp Gly Pro Leu Pro Ser Gly
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Tyr His Arg Arg Lys Ala Gln Gln Met Thr Gln Lys Tyr Glu Glu Glu
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 Gly His Pro Asp Ser Leu Lys Asp Asn Ser Ser Cys Ser Val Met Ser
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 Glu Glu Pro Glu Gly Arg Ser Tyr Ser Thr Leu Thr Thr Val Arg Glu
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 Ile Glu Thr Gln Thr Glu Leu Leu Ser Pro Gly Ser Gly Arg Thr Glu
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<213> Homo sapiens

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<223> BCZ6, IL-6 receptor beta chain (gp130, oncostatin
 M, IL-11, LIF and CNTF receptor) type I
 transmembrane protein

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<221> CDS

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<223> BCZ6

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<213> Homo sapiens

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<223> BCZ6, IL-6 receptor beta chain (gp130, oncostatin
M, IL-11, LIF and CNTF receptor) type I
transmembrane protein

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Ile Val Trp Lys Thr Asn His Phe Thr Ile Pro Lys Glu Gln Tyr Thr
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Ile Ile Asn Arg Thr Ala Ser Ser Val Thr Phe Thr Asp Ile Ala Ser
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 Asn Ile Glu Val Trp Val Glu Ala Glu Asn Ala Leu Gly Lys Val Thr
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 Thr Lys Leu Thr Val Asn Leu Thr Asn Asp Arg Tyr Leu Ala Thr Leu
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 His Gln Val Pro Ser Val Gln Val Phe Ser Arg Ser Glu Ser Thr Gln
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 Met Lys Met Phe Gln Glu Val Ser Ala Ala Asp Ala Phe Gly Pro Gly
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 Thr Glu Gly Gln Val Glu Arg Phe Glu Thr Val Gly Met Glu Ala Ala
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<212> DNA

<213> Homo sapiens

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 Lys Glu Pro Ala Tyr Lys Ala Val Val Thr Glu Gly Lys Ile Tyr Asp
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 Ser Ile Leu Gln Val Glu Ala Ile Asp Glu Asp Cys Ser Pro Gln Tyr
 180 185 190
 Ser Gln Ile Cys Asn Tyr Glu Ile Val Thr Thr Asp Val Pro Phe Ala
 195 200 205
 Ile Asp Arg Asn Gly Asn Ile Arg Asn Thr Glu Lys Leu Ser Tyr Asp
 210 215 220
 Lys Gln His Gln Tyr Glu Ile Leu Val Thr Ala Tyr Asp Cys Gly Gln
 225 230 235 240
 Lys Pro Ala Ala Gln Asp Thr Leu Val Gln Val Asp Val Lys Pro Val
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 Cys Lys Pro Gly Trp Gln Asp Trp Thr Lys Arg Ile Glu Tyr Gln Pro
 260 265 270
 Gly Ser Gly Ser Met Pro Leu Phe Pro Ser Ile His Leu Glu Thr Cys
 275 280 285
 Asp Gly Ala Val Ser Ser Leu Gln Ile Val Thr Glu Leu Gln Thr Asn
 290 295 300
 Tyr Ile Gly Lys Gly Cys Asp Arg Glu Thr Tyr Ser Glu Lys Ser Leu
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 Gln Lys Leu Cys Gly Ala Ser Ser Gly Ile Ile Asp Leu Leu Pro Ser
 325 330 335
 Pro Ser Ala Ala Thr Asn Trp Thr Ala Gly Leu Leu Val Asp Ser Ser
 340 345 350
 Glu Met Ile Phe Lys Phe Asp Gly Arg Gln Gly Ala Lys Ile Pro Asp
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 Gly Ile Val Pro Lys Asn Leu Thr Asp Gln Phe Thr Ile Thr Met Trp
 370 375 380
 Met Lys His Gly Pro Ser Pro Gly Val Arg Ala Glu Lys Glu Thr Ile
 385 390 395 400
 Leu Cys Asn Ser Asp Lys Thr Glu Met Asn Arg His His Tyr Ala Leu
 405 410 415
 Tyr Val His Asn Cys Arg Leu Val Phe Leu Leu Arg Lys Asp Phe Asp
 420 425 430
 Gln Ala Asp Thr Phe Arg Pro Ala Glu Phe His Trp Lys Leu Asp Gln
 435 440 445

Ile Lys Cys Ser Glu Leu Asn Gly Arg Tyr Thr Ser Asn Glu Phe Asn
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 Leu Glu Val Ser Ile Leu His Glu Asp Gln Val Ser Asp Lys Glu His
 785 790 795 800
 Val Asn His Leu Ile Val Gln Pro Pro Phe Leu Gln Ser Val His His
 805 810 815
 Pro Glu Ser Arg Ser Ser Ile Gln His Ser Ser Val Val Pro Ser Ile
 820 825 830
 Ala Thr Val Val Ile Ile Ile Ser Val Cys Met Leu Val Phe Val Val
 835 840 845
 Ala Met Gly Val Tyr Arg Val Arg Ile Ala His Gln His Phe Ile Gln
 850 855 860
 Glu Thr Glu Ala Ala Lys Glu Ser Glu Met Asp Trp Asp Asp Ser Ala
 865 870 875 880
 Leu Thr Ile Thr Val Asn Pro Met Glu Lys His Glu Gly Pro Gly His
 885 890 895
 Gly Glu Asp Glu Thr Glu Gly Glu Glu Glu Glu Glu Ala Glu Glu Glu
 900 905 910
 Met Ser Ser Ser Ser Gly Ser Asp Asp Ser Glu Glu Glu Glu Glu
 915 920 925
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<210> 16

<211> 2616

<212> DNA

<213> Homo sapiens

<220>

<223> BFG7, EST, type III membrane protein

<220>

<221> CDS

<222> (1)..(906)

<223> BFG7

<400> 16

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<211> 330

<212> PRT

<213> Homo sapiens

<220>

<223> BFG7, EST, type III membrane protein

<400> 17

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Gly Asp Arg Glu Pro Val Tyr Arg Asp Cys Val Leu Gln Cys Glu Glu
35 40 45

Gln Asn Cys Ser Gly Gly Ala Leu Asn His Phe Arg Ser Arg Gln Pro
50 55 60

Ile Tyr Met Ser Leu Ala Gly Trp Thr Cys Arg Asp Asp Cys Lys Tyr
65 70 75 80

Glu Cys Met Trp Val Thr Val Gly Leu Tyr Leu Gln Glu Gly His Lys
 85 90 95
 Val Pro Gln Phe His Gly Lys Trp Pro Phe Ser Arg Phe Leu Phe Phe
 100 105 110
 Gln Glu Pro Ala Ser Ala Val Ala Ser Phe Leu Asn Gly Leu Ala Ser
 115 120 125
 Leu Val Met Leu Cys Arg Tyr Arg Thr Phe Val Pro Ala Ser Ser Pro
 130 135 140
 Met Tyr His Thr Cys Val Ala Phe Ala Trp Val Ser Leu Asn Ala Trp
 145 150 155 160
 Phe Trp Ser Thr Val Phe His Thr Arg Asp Thr Asp Leu Thr Glu Lys
 165 170 175
 Met Asp Tyr Phe Cys Ala Ser Thr Val Ile Leu His Ser Ile Tyr Leu
 180 185 190
 Cys Cys Val Arg Thr Val Gly Leu Gln His Pro Ala Val Val Ser Ala
 195 200 205
 Phe Arg Ala Leu Leu Leu Leu Met Leu Thr Val His Val Ser Tyr Leu
 210 215 220
 Ser Leu Ile Arg Phe Asp Tyr Gly Tyr Asn Leu Val Ala Asn Val Ala
 225 230 235 240
 Ile Gly Leu Val Asn Val Val Trp Trp Leu Ala Trp Cys Leu Trp Asn
 245 250 255
 Gln Arg Arg Leu Pro His Val Arg Lys Cys Val Val Val Val Leu Leu
 260 265 270
 Leu Gln Gly Leu Ser Leu Leu Glu Leu Leu Asp Phe Pro Pro Leu Phe
 275 280 285
 Trp Val Leu Asp Ala His Ala Ile Trp His Ile Ser Thr Ile Pro Val
 290 295 300
 His Val Leu Phe Phe Ser Phe Leu Glu Asp Asp Ser Leu Tyr Leu Leu
 305 310 315 320
 Lys Glu Ser Glu Asp Lys Phe Lys Leu Asp
 325 330

<210> 18
 <211> 1284
 <212> DNA
 <213> Homo sapiens

<220>
 <223> BCN4, ESTs, secreted protein

<220>
 <221> CDS
 <222> (143) .. (874)
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caaccttaaa aaaaaaaaaa aaaa 1284

<210> 19
<211> 243
<212> PRT
<213> Homo sapiens

<220>
<223> BCN4, ESTs, secreted protein

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Leu Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala Ser Glu
20 25 30
Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg Glu Val Val
35 40 45
Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly
50 55 60
Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile
65 70 75 80
Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu
85 90 95
Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser
100 105 110
Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe
115 120 125
Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser
130 135 140

Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr
 145 150 155 160
 Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile
 165 170 175
 Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His
 180 185 190
 Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu
 195 200 205
 Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly
 210 215 220
 Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu
 225 230 235 240
 Leu Pro Lys

<210> 20
 <211> 243
 <212> PRT
 <213> Mus sp.

<220>
 <223> mouse BCN4, ESTs, mouse orthologue of human BCN4

<220>
 <221> MOD_RES
 <222> (1)..(243)
 <223> Xaa = any amino acid

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 20 25 30
 Asn Pro Lys Val Lys Gln Lys Ala Leu Ile Arg Gln Arg Glu Val Val
 35 40 45
 Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly
 50 55 60
 Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile
 65 70 75 80
 Pro Cys Gln Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu
 85 90 95
 Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser
 100 105 110
 Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe
 115 120 125
 Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser
 130 135 140

Leu	Arg	Leu	Lys	Cys	Arg	Asn	Ala	Cys	Cys	Gln	Arg	Trp	Tyr	Phe	Thr
145					150					155					160
Phe	Asn	Gly	Ala	Glu	Cys	Ser	Gly	Pro	Pro	Pro	Ile	Glu	Ala	Ile	Xaa
				165					170					175	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			180					185						190	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
		195					200						205		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Ser	Asp	Tyr	Pro	Lys	Gly
	210						215				220				
Asp	Ala	Tyr	Thr	Gly	Trp	Asp	Ser	Val	Ser	Arg	Ile	Ile	Ile	Glu	Glu
225					230					235					240
Leu	Pro	Lys													